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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/722,747

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EXAMINER

CHRISTENSEN, SCOTT B

ART UNIT

PAPER NUMBER

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PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/722,747	Applicant(s) NARAD, CHARLES E.	
	Examiner Scott Christensen	Art Unit 2444	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 26 March 2009.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-10 and 12-15 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-10 and 12-15 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is in regards to the most recent papers filed on 3/26/2009.

Response to Arguments

2. Many of Applicant's arguments with respect to claims 1-10 and 12-15 have been considered but are moot in view of the new ground(s) of rejection.

3. However, on pages 7-8, Applicant argues the finding of Official Notice with respect to the step of "receive of a periodic time value to perform periodic direct memory access transfers of the maintained set of statistics to a host processor memory." While this is no longer the phrasing utilized for the finding of Official Notice, as applied in the current rejection, the current phrasing of "it would have been well known to provide configuration information including a time interval value to the network interface card" is relevant to this argument.

In Applicant's arguments, Applicant indicates what is disclosed by Boucher, but does not provide any substantial arguments that show an error in finding that the cited functionality was well known to a person of ordinary skill in the art. According to MPEP 2144.03 C, "To adequately traverse such a finding, an applicant must specifically point out supposed errors in the examiner's action, which would include stating why the noticed fact is not considered to be common knowledge or well-known in the art." Applicant has provided no arguments as to how the cited functionality was not well known in the art. Further, MPEP 2144.03 C states, "If applicant adequately traverses the examiner's assertion of Official Notice, the examiner must provide documentary

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evidence in the next Office action if the rejection is to be maintained." However, lacking such an adequate traversal, no such documentary evidence is needed at this time.

4. Further, on pages 8-9, Applicant argues that Boucher teaches away from the functionality claimed. However, according to MPEP 2143.01 I, for a reference to be found to teach away, the disclosure of the reference must "criticize, discredit, or otherwise discourage the solution claimed." Applicant has merely shown the solution claimed is not disclosed entirely in Boucher, as Boucher has a different arrangement. However, the rejection of the instant claims already recognizes the differences between Boucher and the instant claims, but has still found that the claims, as currently presented, are still obvious in light of Boucher. If Applicant believes that Boucher specifically criticizes, discredits, or otherwise discourages the solution claimed, and thus teaches away from the solution claimed, Applicant should specifically indicate where in the disclosure of Boucher the relevant disclosure may be found. Otherwise, Boucher cannot be found to be teaching away from the instant claims.

5. Thus, the instant claims stand rejected under 35 USC 103.

Claim Rejections - 35 USC § 103

6. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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7. Claims 1-10, 12-15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Boucher in US Patent 6,434,620, hereafter referred to as “Boucher” in view of “Introduction to the Remote Monitoring (RMON) family of MIB Modules” by Waldbusser, Cole, Kalbfleisch, and Romascanu, hereafter referred to as “Waldbusser” and Kraslavsky in US 5,699,350, hereafter referred to as “Kraslavsky.”

8. With regard to claim 1, Boucher discloses a network interface comprising:
a direct memory access unit (Boucher: Column 8, lines 32-38); and
circuitry to:

receive and transmit network data (Boucher: Abstract);

maintain a set of statistics metering operation of the network interface (Boucher: Column 44, lines 20-23), the set of statistics includes at least one selected from the group of (1) a number of bytes received, and (2) a number of packets received (Boucher: Column 56, lines 51-63); and

initiate direct memory access transfers of the set of statistics to the host processor (Boucher: Column 63, lines 17-43 and Column 56, lines 27-33).

Boucher does not disclose expressly that that the circuitry periodically initiates the direct memory access transfers at a periodicity of a time interval value, or that the circuitry configures said initiation of the direct memory access transfers using a configuration information, by intercepting one or more packets received from said host traveling along a transmit path and determining said configuration information from a payload of said one or more packets, wherein said configuration information comprises said time interval value.

However, Waldbusser discloses the Remote Monitoring family of MIB modules. The functions described in Waldbusser includes the tpmAggregateReportsGroup, which is used to provide the collection of aggregated statistical measurements for the configured report intervals (Waldbusser: Page 16, Section 4.11, "The tpmAggregateReportsGroup"). Further, the statistics are over an interval specified by the management station (Waldbusser: Page 7, paragraph 2).

It would have been obvious to combine Waldbusser with the disclosure of Boucher.

The suggestion/motivation for doing so would have been that statistical information on the network interface of Boucher could be collected automatically at certain intervals configured by the management station. This allows a program or user monitoring the interface to receive recent statistics without requiring that the user refresh the statistics report manually.

Further, Official Notice is taken that it would have been well known to provide configuration information including a time interval value to the network interface card.

Thus, it would have been obvious to modify the teachings of Boucher as modified by Waldbusser to provide configuration information including a time interval value to the network interface card.

The suggestion/motivation for doing so would have been that performing the transfer of the statistics was known. It was also known to transfer the statistics based on requests from the host processor (see Boucher: Column 63, lines 17-43 and Column 56, lines 27-33), as admitted by Applicant (Applicant's Specification: Paragraph [0008]).

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However, this can cause a burden on the system, as the processor would have to manually initiate each transfer of the statistics. By allowing the processor to determine how often to transfer the statistics, the processor would not have to utilize resources to initiate each transfer, instead simply being able to access the most up-to-date statistics when needed.

Further, Kraslavsky teaches a system where a packet is received from a computer device to be forwarded to a LAN, and the network interface detects that the packet is addressed to a predetermined address, and alters the configuration of the network interface in accordance with the configuration of the information in the packet (Kraslavsky: Abstract).

Accordingly, it would have been obvious to utilize the configuration packet of Kraslavsky with the system of Boucher as modified by Waldbusser.

The suggestion/motivation for doing so would have been that utilizing the same communication paths for reconfiguration and network communication allows the hardware to be designed more efficiently, as configuration of the network interface should occur infrequently enough that having a dedicated communication path to configure the network card would be inefficient. Further, utilizing a software reconfiguration as opposed to a hardware reconfiguration scheme (e.g. jumpers) allows the network interface card to be more easily configured to meet the user's requirements without requiring that the system be turned off, then subsequently rebooted to make the configuration changes.

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9. With regard to claim 2, Boucher as modified by Walbusser and Kraslavsky teaches that the set of statistics comprises each of the following: a number of packets received by the interface, a number of bytes received by the interface, a number of packets transmitted by the interface, and a number of bytes transmitted by the interface (Boucher: Column 56, lines 51-63).

10. With regard to claim 3, Boucher as modified by Walbusser and Kraslavsky teaches the invention as substantially claimed except that the circuitry comprises circuitry to include a timestamp with the direct memory access transfer of the set of statistics, the timestamp being a time when the values of the set of statistics transferred by direct memory access were set by the network interface.

However, Official Notice is taken that it was well known to have timestamps indicating when data was written. For example, it was well known with operating systems to include a timestamp indicating when a file was last modified and when the file was created.

Accordingly, it would have been obvious to modify the teachings of Boucher as modified by Waldbusser to include a timestamp with the direct memory access transfer of the set of statistics, the timestamp being a time when the values of the set of statistics transferred by direct memory access were set by the network interface.

The suggestion/motivation for doing so would have been that including information on when the set of statistics were set allows the system to be aware of the time that the set of statistics were current, which is valuable for purposes of analysis of

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the conditions of the connection. For example, a large number of packets received may be evidence of a DoS attack, where having knowledge of the timing would allow the attack to be correlated with other possible attacks, or at the very least analyzed with respect to other known network conditions in order to determine the source of the attack.

11. With regard to claim 4, Boucher as modified by Walbusser and Kraslavsky teaches that the circuitry to include a sequence count with the direct memory access transfers of the at least one statistic (Boucher: Column 57, lines 6-12).

Boucher does not disclose expressly that the sequence count sequentially numbering successively DMA-ed sets of the statistics.

However, it would have been obvious to have the sequence count sequentially numbering successively DMA-ed sets of the statistics.

The suggestion/motivation for doing so would have been that counters typically sequentially number the events that the counter is associated with. Therefore, a person of ordinary skill in the art would most likely have used sequential numbers to count the transfer of the DMA transmissions of the statistics.

12. With regard to claim 5, Boucher as modified by Walbusser and Kraslavsky teaches the invention as substantially claimed except that the set of statistics comprises multiple RMON (Remote Monitoring) statistics.

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However, Waldbusser discloses RMON, and the collection of statistics within RMON (Waldbusser: Page 3, section 3).

It would have been obvious to combine the teachings of Waldbusser with the combination of Waldbusser and Boucher.

The suggestion/motivation for doing so would have been RMON, as in Waldbusser, allows for monitoring devices to be utilized to remotely monitor a network. Any statistic that is collected within the RMON framework would result in the statistic being an RMON statistic as claimed.

13. With regard to claim 6, Boucher as modified by Walbusser and Kraslavsky teaches that the circuitry comprises circuitry to initiate direct memory access transfer of received network data (Boucher: Column 8, lines 30-37).

14. With regard to claim 7, Boucher as modified by Walbusser and Kraslavsky teaches that the network interface comprises a framer (Boucher: Column 56, lines 18-26).

15. With regard claim 8, Boucher as modified by Walbusser and Kraslavsky teaches that the network interface comprises a Media Access Controller (MAC) (Boucher: Figure 21, MAC-A to MAC-D).

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16. With regard to claim 9, Boucher as modified by Walbusser and Kraslavsky teaches that the network interface comprises a PHY (Boucher: Column 77, lines 6-15).

17. With regard to claim 10, Boucher as modified by Walbusser and Kraslavsky teaches circuitry to configure the circuitry to initiate the direct memory access transfers (Boucher: Column 60, lines 53-59).

18. With regard to claim 12, Boucher as modified by Walbusser and Kraslavsky teaches that the circuitry to configure comprises at least one register (Boucher: Column 56, lines 27-33).

19. With regard to claim 13, Boucher as modified by Walbusser and Kraslavsky teaches that the circuitry to configure comprises circuitry to determine said configuration information from one or more received packets (This limitation is addressed in the rejection of claim 1).

20. With regard to claim 14, Boucher as modified by Walbusser and Kraslavsky teaches that the circuitry to determine said configuration information from said one or more received packets comprises circuitry to intercept packets received from the host traveling along said transmit path (This limitation is addressed in the rejection of claim 1).

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21. With regard to claim 15, Boucher as modified by Walbusser and Kraslavsky teaches that the direct memory access unit comprises circuitry to notify a processor of completion of the transfer (Boucher: Column 90, line 64 to column 91, line 12).

Conclusion

22. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Scott Christensen whose telephone number is (571)270-1144. The examiner can normally be reached on Monday through Thursday 6:30AM - 4:00PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, William Vaughn can be reached on (571) 272-3922. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/S. C./

Examiner, Art Unit 2444

/William C. Vaughn, Jr./

Supervisory Patent Examiner, Art Unit 2444